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THE USE OF ORIGINAL INSTRUCTIONAL MATERIALS AS A STIMULUS FOR  
IMPROVED READING.

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PUB DATE    DEC 66

EDRS PRICE   MF-\$0.25   HC-\$0.32   8P.

DESCRIPTORS- \*GRADE 1, \*READING RESEARCH, \*READING MATERIALS,  
\*READING ACHIEVEMENT, READING PROGRAMS, LISTENING SKILLS, SEX  
DIFFERENCES, READING DEVELOPMENT, NEGRO STUDENTS, CAUCASIAN  
STUDENTS, MEXICAN AMERICANS, TEXTBOOK PREPARATION, HARSCH AND  
SOEBERG SURVEY TEST OF PRIMARY READING DEVELOPMENT,

A VARIETY OF READING MATERIALS AND METHODS WERE  
DEVELOPED TO DETERMINE THEIR EFFECT ON THE READING  
ACHIEVEMENT OF FIRST GRADERS. MATERIALS DEVELOPED INCLUDED  
READING READINESS MANUALS, PRIMER TEXTS AND MANUALS, AND  
LISTENING TAPES. THE FIRST-GRADE PUPILS IN 10 LOS ANGELES  
SCHOOLS SERVED AS SUBJECTS. THEY WERE MATCHED WITH A CONTROL  
GROUP ON INTELLIGENCE, HOME BACKGROUND, AND ETHNIC ORIGIN. A  
DIVIDED-DAY STRUCTURE WAS USED TO TEACH READING. THE HARSCH  
AND SOEBERG SURVEY TEST OF PRIMARY READING DEVELOPMENT WAS  
USED AS A POST TEST. THE DATA WERE ANALYZED BY A THREE-WAY  
ANALYSIS OF COVARIANCE. THE MAIN EFFECTS WERE SEX, TREATMENT  
GROUP, AND ETHNIC ORIGIN. GIRLS SCORED HIGHER THAN BOYS. THE  
EXPERIMENTAL GROUP SCORED HIGHER THAN THE CONTROL GROUP.  
NEGRO AND CAUCASIAN STUDENTS SCORED HIGHER THAN THE  
MEXICAN-AMERICAN GROUP. THE LATTER WAS MORE HOMOGENEOUS AS  
REFLECTED IN THE SMALL STANDARD DEVIATION. FURTHER RESULTS  
AND TABLES ARE INCLUDED. THIS PAPER WAS PRESENTED AT THE  
NATIONAL READING CONFERENCE (ST. PETERSBURG, DECEMBER 1-3,  
1966). (BK)

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THE USE OF ORIGINAL INSTRUCTIONAL MATERIALS AS A  
STIMULUS FOR IMPROVED READING

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Basic to many of the newer approaches in teaching reading is the assumption that success in beginning reading is crucial, and that the reading programs in the primary grades must be organized to assure it. Evidence of the importance of achievement in initial reading instruction is the large number of research studies designed to find more effective ways of teaching beginning reading.

BACKGROUND OF THE RESEARCH

Over the past five years the writer has been engaged in research with approximately 400 first-grade children, each year, in the Los Angeles City schools. The purpose of the research has been to experiment with a variety of materials and methods in teaching beginning reading to determine the effect upon the reading achievement of first-grade children. Based on the results of this experimentation, the writer has worked with teachers and administrators to develop new materials to capture the interest of both boys and girls, to teach reading skills sequentially from the easy to the difficult, to provide for levels of difficulty, and to reinforce reading skills.

PROCEDURES IN RESEARCH

During the school year 1965-1966, ten Los Angeles City elementary

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schools used the experimental materials to teach reading to the children in the first grade. These schools covered a broad range of socio-economic levels from middle-class to lower-class populations, with approximately equal numbers of Caucasian, Negro, and Mexican-American children. The experimental groups were matched with control groups typical in intelligence, home backgrounds, and ethnic origins.

The research design was based on a divided-day structure for teaching reading, in which one-half of the children were given reading instruction between 9:00 and 10:00 in the morning and the other half between 2:00 and 3:00 in the afternoon. The Harsch and Soberg Survey Test of Primary Reading Development was given in June to secure reading achievement scores for both the experimental and control groups.

MATERIALS IN THE RESEARCH. The materials listed below were developed under a Rosenberg Grant to the writer, at Occidental College.

Reading Readiness Materials. Each teacher in the experimental groups used a comprehensive reading readiness manual which contained specific, concrete suggestions in lesson-plan form to develop speech sounds and listening skills in a structured program of prereading activities.

Reading Textbooks and Manuals. The readers used in the experimental groups contained original, imaginative, exciting stories about Hawaii, our fiftieth state, and Alaska, our forty-ninth state. The books include the following: Kam in Hawaii, preprimer; Kam and Bud in Hawaii, preprimer; Fun in Hawaii, preprimer; Adventures in Hawaii, primer; Adventures in Alaska, first-grade reader. Since the readers contained factual material, there were concomitant learnings possible for the

children in such areas as science, geography, and social studies.

A manual was provided for each of the reading books. This manual contained a detailed lesson plan for each story in the books, with two follow-up practice sheets for each lesson, to be done independently by the children. One follow-up sheet emphasized the comprehension skill taught in the lesson; the other, the vocabulary skill.

Listening Tapes. A set of 72 tapes, covering the content of each story in the three preprimers and the primer, were given to the experimental teachers. These tapes, used by children at listening centers, provided opportunity for rereading the story previously taught in the directed reading lesson. Each tape had follow-up practice material to be completed by the children listening to the tape, and to be corrected as the last part of the tape activity. The tapes provided additional drill and reinforcement for children who needed this help.

#### RESULTS OF THE RESEARCH

The Harsch and Soeberg Survey Test of Primary Reading Development was given to the control and experimental groups in June, 1966. With the data from this test a three-way analysis of co-variance was performed with sex, experimental-control, and ethnic group as the main effects.

Table I A, B, and C gives means and standard deviations separated with respect to sex, experimental-control, and ethnic background.

Table I A shows that the girls scored higher than the boys in each of three ethnic groups in the research, as well as in the total. Table I B shows that the Negro and Caucasian groups scored higher than the Mexican-American group, and that the experimental portion of each ethnic group scored higher than the control portion of the same ethnic group.

Table I C shows that girls in both experimental and in control groups scored higher than boys, but that boys in the experimental group scored higher than either boys or girls of the control group.

In Table I B and C it can be noted that the mean for the total experimental group is almost 49, while the mean for the total control group is slightly over 43. In every case--whether compared by ethnic grouping or by sex--the experimental group achieved more in reading than the control.

In analyzing Table I A, B, and C it must be remembered that these means are not the actual or achieved means for each group, but rather have been changed to reflect differences in the average I.Q. scores for each group. For instance, the Negro group has an adjusted mean of 47.23, which is higher than that of either the Mexican group, with a mean of 42.45, or the Caucasian group with a mean of 46.77. This order of achievement in the adjusted scores was not the same order as in the raw scores before the adjustment.

Further, a most interesting finding in Table I is the extremely small variation achieved by almost all of the Mexican-American groups, as indicated by the low standard deviation. This suggests that the Mexican-American children were much more homogeneous with respect to reading than either of the other two groups. It would seem that these children had similar kinds of problems in reading related to the sameness of their verbal behavior; that is, difficulties in auditory discrimination of English words with resulting problems in transfer and generalization in phonetic analysis.

Table I  
ADJUSTED MEANS AND STANDARD DEVIATIONS FOR READING TOTAL

| <u>A</u>     | <u>Caucasian</u>      | <u>Mexican</u>        | <u>Negro</u>          | <u>Total</u>          |
|--------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Boy          | 46.04<br>11.43        | 41.84<br>7.72         | 45.54<br>12.69        | 45.01<br>11.67        |
| Girl         | 47.50<br><u>10.64</u> | 43.26<br><u>8.45</u>  | 48.97<br><u>11.81</u> | 47.34<br><u>11.11</u> |
| Total        | 46.77<br><u>11.09</u> | 42.45<br>8.09         | 47.23<br>12.41        | 46.13<br>11.53        |
| <u>B</u>     | <u>Caucasian</u>      | <u>Mexican</u>        | <u>Negro</u>          | <u>Total</u>          |
| Experimental | 49.74<br>11.92        | 43.95<br>5.23         | 50.34<br>12.99        | 48.89<br>12.00        |
| Control      | 43.75<br><u>9.44</u>  | 40.95<br><u>10.18</u> | 44.12<br><u>11.04</u> | 43.37<br><u>10.44</u> |
| Total        | 46.77<br><u>11.09</u> | 42.45<br>8.09         | 47.23<br>11.81        | 46.13<br>11.53        |
| <u>C</u>     | <u>Boy</u>            | <u>Girl</u>           | <u>Total</u>          |                       |
| Experimental | 47.31<br>12.58        | 50.67<br>10.99        | 48.89<br>12.00        |                       |
| Control      | 42.56<br><u>10.02</u> | 44.18<br><u>10.59</u> | 43.37<br><u>10.44</u> |                       |
| Total        | 45.01<br>11.67        | 47.34<br>11.11        |                       |                       |

Table II gives the analysis of co-variance with sex, experimental-control, and ethnic group as the main effects. This Table represents the analysis of co-variance, with I.Q. being the covariant. In this analysis a test was made to see if the means shown in Table I were significantly different. It was found that all three main effects show significant differences:

1. The girls read significantly better than the boys in the study.
2. The Mexican-American children read significantly worse than the Caucasian or Negro.
3. And, most important, the experimental groups read significantly better than the control.

Table II also shows that combinations of the various possible groupings of the three main effects do not produce significant additional differences. That is, none of the interactions are significant.

In summary, it may be said that the children in the first grade who were using the new, high-interest materials achieved significantly more in reading than those who were using the regular state texts.

Table II  
ANALYSIS OF CO-VARIANCE

|                      | Adjusted Sums<br>of the Squares | df  | Adjusted<br>Mean Square | F     |
|----------------------|---------------------------------|-----|-------------------------|-------|
| Sex                  | 402.34                          | 1   | 402.34                  | 5.86  |
| Experimental Control | 2099.57                         | 1   | 2099.57                 | 30.57 |
| Ethnic               | 1110.88                         | 2   | 555.44                  | 8.09  |
| Sex x EC             | 29.34                           | 1   | 29.34                   | .43   |
| Sex x Ethnic         | 75.55                           | 2   | 37.78                   | .55   |
| Ec x Ethnic          | 152.01                          | 2   | 76.00                   | 1.11  |
| Sex x Ec x Ethnic    | 70.95                           | 2   | 35.48                   | .52   |
| Error                | 25,138.84                       | 366 | 68.69                   |       |